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HONEYWELL INTERNATIONAL INC.
and Counterclaimant HONEYWELL
INTELLECTUAL PROPERTIES INC.

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
WESTERN DIVISION

TELEDYNE TECHNOLOGIES INC., a Delaware corporation, Plaintiff, vs. HONEYWELL INTERNATIONAL INC., a Delaware corporation, Defendant.	Case No. CV 06-06803 Assigned to: Hon. Margaret M. Morrow **DECLARATION OF CHRIS A. WARGO**
HONEYWELL INTERNATIONAL INC. and HONEYWELL INTELLECTUAL PROPERTIES INC., a Delaware corporation, Counterclaimants, vs. TELEDYNE TECHNOLOGIES INC., a Delaware corporation, Counterdefendant.	

DECLARATION OF CHRIS A. WARGO

I, Chris A. Wargo, declare as follows:

1. I have personal knowledge of the information contained herein and if called, could testify competently thereto.

2. I am currently the President of Computer Networks & Software, Inc. My business address is 7405 Alban Station Court, Suite B-215, Springfield, VA 22150. Computer Networks & Software, Inc. is a provider of communications and software technology solutions for aeronautical systems used in commercial and government applications.

3. I have been retained by Honeywell, Inc. in this case at my normal hourly rate of $225 per hour. My compensation in this matter is not related to the outcome of this case.

4. From February of 1988 until April 1998, I was employed by ARINC. ARINC is a communications and information services company that sets industry standards and provides systems integration and development for the aviation and travel industries, as well as government and commercial sectors. ARINC standards are widely used throughout the aeronautical and avionics industry, particularly with respect to data communications. The Honeywell and Teledyne patents in this case all refer to ARINC standards. U.S. Patent No. 6,181,990 (the "990 patent") at column 3, lines 18-20 ("The I/O interface 30 can be a standard bus interface such as, for example, and ARINC 429 bus interface."); U.S. Patent No. 6,477,152 at p.1 (citing seven ARINC standards in the "References Cited" section); U.S. Patent No. 6,438,468 at column 4, lines 55-58 ("Additional details

about IEEE 802.11 communications in an aircraft environment are contained in ARINC Characteristic 763 dated December 1999, commonly called the 'Gatelink Standard.'").

5. While at ARINC, I served as Vice President of the Engineering and Programs, Information Commerce and Engineering, and Information Systems Divisions. My responsibilities at ARINC included, among other things, the design, development and management of air-to-ground data communications and reporting systems used by major airlines, government, and other aircraft operators. As a Vice President at ARINC, I was familiar with data reporting requirements for aircraft operators, the data communications systems in use by aircraft operators, and aeronautical data communications standards.

6. I have read the '990 patent, which is entitled "Aircraft Flight Data Acquisition and Transmission System," and was filed on July 30, 1998.

7. By July of 1998, the FAA had for many years required large aircraft operators to collect and record the parameters listed in the '990 patent as examples of "flight data." At that time, this required information was collected and processed by an aircraft component universally known as the "flight data acquisition unit," or "FDAU." In 1998, both analog and digital FDAUs were well known aircraft components. Consistent with this, the specification of the '990 patent states that the "data acquisition unit" discussed in the patent could include a digital flight data acquisition unit, or "DFDAU," processor. Based on the above, a person of skill in the art at the time the '990 patent was filed would have understood the term "data acquisition unit" as it is used in the '990 patent to mean the FDAU, a standard component that was on

every large aircraft at the time.

8. At the time the '990 patent was filed, the term "flight operations center" was understood by those of skill in the art to mean a base of flight operations for an airline or other aircraft operator. Flight operations centers were used for functions such as flight dispatch, flight planning, flight status monitoring, weather monitoring, and cabin and crew scheduling. As a specific example, in 1998, United Airlines had (and continues to have) a "flight operations center" in Chicago that I have visited multiple times during and after my work at ARINC, that performs these flight operations functions. Attached to this declaration as Exhibit A is a printout of a web page showing a 1997 news release from the National Center for Atmospheric Research ("NCAR") that mentions United Airlines' flight operations center. In contrast to the flight operations center, United Airlines also has a "maintenance operations center," located in the San Francisco International Airport, which performs more maintenance-oriented functions.

Dated: November 19, 2007

Chris A. Wargo

Wargo Declaration

Exhibit A

National Center for Atmospheric Research
University Corporation for Atmospheric Research • P.O. Box 3000 • Boulder, CO 80307-3

NEWS RELEASES

1997-2 -- **FOR IMMEDIATE RELEASE:** January 8, 1997

New Help for Deicing Decisions: Delta, USAir, American, United Airlines Test FAA/NCAR Info System at LaGuardia and O'Hare

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January 8, 1997

BOULDER--Two of the nation's busiest and snowiest airports, New York's LaGuardia and Chicago's O'Hare, will be test sites this winter for a new data- gathering and display system to aid airlines in making deicing decisions. Beginning early January, the system will provide snowfall "nowcasts" up to 30 minutes in advance for participating airlines to help reduce takeoff delays, increase safety, and save money on deicing procedures.

Ice buildup on aircraft waiting to depart can be a serious safety hazard. As little as 0.8 millimeter of ice on the upper wing surface increases drag and reduces airplane lift by 25%. With deicing fluids ranging from $2 to $4 a gallon, battling ice buildup can cost airlines tens of thousands of dollars in a single snowy day, in addition to the expense of flight cancellations and delays. The new system's half-hour forecasts could mean big savings for airlines through more effective deicing practices and fewer cancellations.

Funded by the Federal Aviation Administration (FAA), the Weather Support to Deicing Decision Making (WSDDM) was developed by the National Center for Atmospheric Research in Boulder.

The FAA will evaluate WSDDM at both airports through user surveys and cost/benefit analyses. If successful, it will become a standard feature for those airlines willing to pay for its operation at airports regularly besieged by winter weather.

At LaGuardia, Delta and USAir will participate from early January through March. American and United, which helped test a prototype of the system last year at O'Hare with encouraging results, will

participate there again this winter, from mid- January through April.

Roy Rasmussen, head of NCAR's deicing program, comments, "Passengers can get anxious about safety and unpredictable delays in bad weather. I hope that providing the most up-to-date snowfall information will result in safer winter flying and greater confidence for the public." According to Rasmussen, four or five major storms at each site this year would be enough to demonstrate the system's usefulness.

During the demonstration, surface weather stations, snow-weighing gauges, and Doppler radars will measure snowfall accumulation, temperature, humidity, wind speed and direction, and the water content of snow. The data will be processed instantly and displayed graphically on video monitors at both the Delta control tower and the Marine Air Terminal at LaGuardia, the New York Traffic Control (TRACON) office in Westbury, USAir's operations center in Pittsburgh, and the Delta operations center in Atlanta. At O'Hare, monitors will be installed at United's station control, tower, and flight operations center.

The monitors will show bands of snow detected by the National Weather Service's NEXRAD radar network as they move toward or away from the airports. Data from snow-weighing gauges strategically placed in and near the airports will be displayed as a simple graph showing the water content of snow at various locations--a key factor in deicing decisions. The resulting nowcasts (0-30 minutes) based on these and other meteorological data are expected to aid airport officials, including ground personnel deicing the planes, airline station control managers coordinating flights, airport managers in charge of plowing the runways, and air traffic controllers deciding how long to hold planes at gates.

The new technology is a direct result of scientific research. Rasmussen found that the potential of snow to form ice on an airplane's wings and fuselage corresponds to the amount of water in the snow rather than to visibility, which has traditionally determined deicing and takeoff decisions. In studying a number of takeoff crashes due to icing (see list below), he noticed that visibility at the time of the accidents varied widely. He determined that large, dry snowflakes hampering visibility were less of a threat than small, heavy flakes holding more water. The snow-weighing gauges used in this winter's test at O'Hare and LaGuardia will measure the actual liquid content of the snow.

"Pilots have already become more aware that visibility can be misleading when it comes to aircraft icing," says Rasmussen. "Now we can give them quantitative measurements indicating the real potential of snow to form ice on aircraft."

NCAR has placed two snow-weighing gauges at LaGuardia, two at John F. Kennedy Airport, and one at Newark Airport nearby in New Jersey. In the Chicago area, gauges will be placed at O'Hare, at Midway Airport, in the city of Wilmette, and at the College of Du Page, southwest of O'Hare.

The University Corporation for Atmospheric Research manages NCAR under sponsorship by the National Science Foundation. This research is sponsored by the National Science Foundation through an interagency agreement in response to requirements and funding by the Federal Aviation Administration's Aviation Weather Development Program.

Takeoff Accidents in Which Wing Surface Ice Contaminations Were a Contributing Factor

Mo/Yr	Aircraft Type	Location	Icing Conditions

12/68	DC-9	Sioux City, Iowa*	Light, freezing drizzle; fog
11/78	DC-9	Newark, N.J.*	Snow, fog
2/79	Nord 262	Clarksburg, Wyo.	Frozen snow
2/80	Bristol 253	Boston, Mass.*	Light snow, fog
1/82	B0737	Washington, D.C.*	Snow
2/85	DC-9	Philadelphia, Pa.*	Light, freezing drizzle; ice pellets
12/85	DC-8	Gander, Newfoundland	Light, freezing drizzle
11/87	DC-9	Denver, Colo.*	Snow
3/89	F-28	Dryden, Ontario	Snow
3/92	F-28	New York, N.Y.*	Snow

*Data from snow-weighing gauges available

-The End-

To obtain the photo, contact NCAR Visual Communications: Nita Razo, tel. 303-497-8606 (razo@ucar.edu) or Linda Carbone, tel. 303-497-8612 (lcarbone@ucar.edu).

To receive UCAR and NCAR press releases by e-mail, contact Milli Butterworth telephone 303-497-8601 or butterwo@ucar.edu

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